



CSP JOB SHEET

ESM-Soil Conditioning Index

ENHANCEMENT: Increasing Soil Conditioning Index

BENEFITS

(ESM-first enhancement)

MAJOR BENEFITS:

- Reduced Soil Loss.
- Increased levels of soil organic matter
- Increased development of water-stable soil aggregates.
- Greater retention and cycling efficiency of plant nutrients.
- Reduced amounts of carbon dioxide released into the atmosphere.
- Increased potential to lower pesticide usage.
- Increased moisture intake, retention, and release for crop growth.

NOTE: The Soil Conditioning Index is a weighted value based on erosion rates, tillage type and intensity, and amount of plant biomass returned to the soil. It is used to track trends in organic matter losses and gains. If the index is a positive value, soil organic matter levels are predicted to increase under that management system.

CRITERIA

To be eligible for this enhancement payment, fields must meet the following criteria.

- The index values must be in a positive trend, rounded in increments of one-tenth (.1).
- Limit field operations to minimum needed.
- Choose implements/adjustments to minimize soil surface disturbance. NRCS can assist.
- Areas rutted by harvesting or other operations may be repaired in accordance with a plan prior approved by NRCS.
- Use maximum manageable amounts of crop biomass-either crop residues or cover crops.
- Winter cover crops may not be terminated prior to boot stage for grasses or flower stage for legumes.
- Soil disturbance for harvest operations must be held to a minimum. Crops that require digging may not repeat more often than once in three years.

RECORDKEEPING

In order to verify performance with these criteria, you must complete the following records.

Field	Current rotation and tillage	SCI	Planned rotation and tillage	SCI	Date Checked
Ex: 1-6	Continuous cotton, no-till Rye cover, disk and plant	0.2	Continuous cotton, no-till Rye cover, no-till	0.5	6/20/05